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ABSTRACT

This paper explores the potential the North American community college model holds for Latin America as a means of responding to the expansion of secondary education in this region. The authors propose learning from, not imitating, experiences found in North America and Europe and discuss how these lessons may be of used to inform Latin American educational policy. The paper begins with a brief introduction to the origins of the community college in the United States and highlights a few of the defining characteristics of the community college model: accessibility, accountability, social mobility, and economic benefits for students. The second section of this paper provides a brief introduction to postsecondary education in Latin America and then discusses how insights gleaned from an analysis of the North American community college model might be useful in shaping Latin American educational policy and institutions. The authors conclude that the North American model of community colleges holds very real potential to inspire Latin America to create a similar system tailored to meet the unique demands and needs of the region. Appended is a summary of key descriptive statistics for American community colleges. (Contains 22 references.) (RC)

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Community Colleges:

Is There a Lesson in Them for Latin America?

Claudio de Moura Castro
Andrés Bernasconi
Aimee Verdisco

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Foreword

As secondary education in Latin America and the Caribbean expands its reach and more attention is given to the post-secondary level, new demands are placed on educators and ministries. New methods of teaching will have to be found, new markets for graduates will have to be identified, and better targeting mechanisms for matching students with the market's real demand for labor will have to be defined and implemented. In short, the very definition of secondary and post-secondary education will have to be reexamined.

It is in this regard that the community college model prevalent in the United States and Canada merits closer examination. Several countries in Latin America and the Caribbean have experience introducing short post-secondary courses and nonuniversity institutions, sometimes as a result of private initiative, sometimes as a matter of public policy. Europe and North American models have inspired these innovations. Yet, this paper contends that more needs to be done in this area, in all countries. And it explores in depth the model of the community college as an interesting source of ideas and relevant responses to changes in the social and economic landscape of the region.

Community colleges provide post-secondary training through programs shorter than those offered at four-year universities. Their clientele is more diverse than that of the universities. Students at community colleges are more likely to combine their studies with fulltime employment and to have already acquired experience, sometimes significant, in the labor force before enrolling. The model offers these students a means to perfect and expand skills needed to advance in their jobs and/or to fulfill pre-requisites for further study at four-year institutions. For students of lower socioeconomic extraction in particular, the equity implications are clear.

This paper explores the potential the community college model holds for Latin America. The authors' hope is that countries and institutions will look at this model not as something that should be necessarily imitated, but for inspiration and as an opportunity to reflect on the relevance and effectiveness of the current supply of post-secondary education and training.

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Contents

Introduction
1

Good for the United States:
Good for Latin America?
11

Community Colleges:
A Viable Model for Latin America?
18

References
19

Annex
21

Introduction

Community colleges are educational institutions that provide post-secondary training through shorter programs than are offered at four-year universities. More formally, a community college is an institution of higher education in which an associate degree is the highest conferred.[1] Clark Kerr, a maven of U.S. higher education, has heralded community colleges as this century's most innovative experience in the field of education. Trends toward the establishment of these programs are evident worldwide. In Europe and the United States, for examples, two-year programs account for at least one half of all post-secondary education graduates. Should Latin America be any different?

Probably not. Yet, Latin America lags behind Europe and the United States in diversifying options for post-secondary study. The creation of one- and two-year courses has been slow and, although market forces that are changing the higher education landscape, it remains to be seen whether or not interest in community colleges will grow. Countries with high private enrollment in post-secondary education may see the community college option as viable and desirable. In those instances where the private sector plays a small role or is constrained by Byzantine legislation, the probabilities are likely to be smaller, at least in the short term. In other cases, it is not the paucity of community college-like programs that raises alarm, but issues of quality and the adequacy of response to market demands for skilled labor.

This paper discusses lessons learned from the community college experience that may inform education policy in Latin America. The authors propose learning from, not imitating, experiences found in North America and Europe. The leap from one region to the next is neither extreme nor unthinkable. As Levy (1999) points out, there is a tendency among institutions of higher learning to imitate others. For example, poorer schools imitate richer schools and, with few exceptions, private schools slavishly and mindlessly copy public ones. Similar phenomena also occur internationally. Education models have been exported far and wide, from Europe to the United States, from the United States to Latin America, from Asia to Africa. Not all have been successful. On countless occasions, the quality of national systems of education has been compromised by mixing and matching models inappropriate or irrelevant to the specifics and needs of the situation at hand. Thus, whereas the rich experiences of community colleges elsewhere hold valuable lessons for Latin America, the challenge is less one of copying the model and more one of examining the lessons that can be drawn from those experiences that realistically could be applied and replicated across the region.

After examining the experience of the United States, the paper discusses the applicability of the community college model to Latin America. In doing so, it should be kept in mind that, even in the United States, community colleges represent a category of institutions that has been the subject of limited study (Kane and Rouse, 1999).[2] Elite universities focus their research on elite universities—not community colleges. By most accounts and sources, academic and main-

[1] In the United States, the Associate degree is granted upon completion of a two-year program. Canadian community colleges offer also three-year certificate programs, an option not available in U.S. community colleges.

[2] When not otherwise noted, statistics and other data used throughout this paper are drawn from this article.

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stream, community colleges remain almost invisible.[3]

To say that community colleges suffer from a chronic status problem is an understatement. The Left views them as performing a *cooling out* function, as if they were some sort of consolation prize or bone thrown to the poor (see Apple, 1978; Karabel, 1972). Even their students seem contrite. In the words of one: "I couldn't go to a 'real' college, so I went to NOVA [Northern Virginia Community College]" (cited in Naughton, 1999).

The picture is even bleaker in Latin America. The community college-like institutions that do exist respond to the needs of the least affluent and politically vocal groups enrolling in higher education. They thus tend to be short-changed in the allocation of funds and prestige. Shorter programs are viewed with outright disdain, when not simply ignored by legislation focusing solely on university degrees, as is the case in some Central American countries. In Chile, a country with the most advanced higher education structure in the region, neither the presidents nor rectors of two-year programs sit on or are privy to the Council of Presidents. As a result, higher education policies are discussed without input from this sector. This creates a particularly difficult situation in that there are more two-year institutions than universities in Chile. Similar conditions exist in Venezuela.

Current demographic pressures may force some change. As secondary education in Latin America and the Caribbean expands its reach and more attention is given to the post-secondary level, educators and ministries will be left grappling with the demands of populations previously excluded from higher education. New methods of teaching will have to be found, new markets for graduates will have to be identified, and better targeting mechanisms for matching students with the market's real demand for labor will have to be defined and implemented. In short, the very definition of secondary and post-secondary education will have to be reexamined.

It is in this respect that the community colleges may offer a source of inspiration for Latin America. Community colleges, although variously accused of being envious of four-year colleges, of trying to imitate them, and even of suffering from academic drift, do fill a market niche. They cater to a clientele distinct from that of regular universities and provide them with skills that can be immediately applied—and rewarded—in the job market.

ORIGINS OF COMMUNITY COLLEGES IN THE UNITED STATES

Community colleges were built on a broadly defined notion of accessibility. For many, accessibility was, and remains, synonymous with opportunity (de la Garza, 2000). Community colleges facilitate access to higher learning without overburdening four-year programs. Indeed, it was the very structure of these four-year programs that made this possible. The first two years of study were (and continue to be) virtually identical for all four-year programs, regardless of specialization (or *major*) selected for the last two years,[4] and no course of study constitutes occupational preparation *per se*. For the most part, community colleges are small schools with a scale of operations made viable precisely by the fact that in the United States the first two years of most courses of study are quite standard across institutions.

The implications following from this are many. With time, community colleges have become attractive options for small cities lacking the infrastructure, student demand, or capital to create a four-year institution. This, in turn, serves to ebb migration flows, especially in rural areas. Community colleges provide an opportunity for youth who otherwise would leave their hometowns in search of a better education and job prospects, often never to return. They also

[3] In the heated debate on four-year programs, community colleges are neither criticized nor praised. In its annual ranking of institutions of higher education, *US News and World Report* does not even include community colleges.

[4] It should be noted that *major* refers solely to an area of concentration and not to a true preparation for the labor market, which is actually what programs at the graduate level (MA/MS) do.

have provided and continue to provide a link to local development efforts.

Community colleges took root in the beginning of the twentieth century when the Joliet Township (Illinois) school board gave the local high school permission to offer the first two years of post-secondary education. The example of Joliet was soon followed by the state of California, which first authorized high schools to offer the first two years of college and, in 1917, recognized the right of school districts to establish separate, public *junior* colleges. With several other states following suit during the 1920s, the junior college—later renamed *community* college to avoid the negative connotations of "junior" and stress its community-based mission—took root (Vaughan, 2000). Enactment of the GI bill[5] after the Second World War led to mushrooming demand for these schools since most of the demobilized soldiers did not exhibit the profile of a typical college student. Enrollment in community colleges doubled between 1944 and 1947.

Community colleges serve a very different type of student body than four-year institutions. An estimated 64 percent of community college students attends part-time and 84 percent hold full-time jobs. The average age of students is 29 and 33 percent are 30 years of age or older. Over half of the students attend courses for periods of one year or less (many certificates can be earned in one year). Many courses are offered in the evening or on weekends. Great effort is made to offer courses close to where students live or work by means of branch campuses. For example, Broward Community College in Florida maintains five campuses: one centrally located, and one at each of the cardinal points (north, south, east and west). In much the same vein, community colleges tend to offer more distance-learning courses than do four-year programs, a further indication that these institutions cater to older students who are already in the labor market.

Enrollment at community colleges and like institutions has been increasing at a much faster rate than at four-year schools. Some universities, including some of the most prestigious (e.g., Harvard), have begun to offer short programs conferring associate degrees, which operate, for all intents and purposes, the equivalent of a community college within their walls.[6] Short courses offered in these settings tend to be practical in nature, to be oriented towards specific occupations and to promise concrete gains (e.g., financial) as a result of study. The example of Southeastern University is illustrative in this manner (see box).

Text from an advertisement in
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SOUTHEASTERN UNIVERSITY

Today, the 1,132 community colleges in the United States have a combined enrollment of 5.4 million (10.4 million if not-for-credit students are included), representing 44 percent of all undergraduates, 38 percent of all post-secondary enrollment and 45 percent of state-affiliated education. These schools now account for one half of all post-secondary diplomas within the public system. An estimated 95 percent of post-

[5] A system of public subsidies whereby the federal government made monthly payments to demobilized soldiers who wanted to pursue post-secondary studies.

[6] The Harvard University Extension School currently sponsors 580 courses in over 50 fields and enrolls 13,000 students annually. Among others, it offers an Associate in Arts (AA) degree. See http://www.extension.dce.harvard.edu/.

secondary enrollments of short duration are in public institutions.[7] Merely 12 percent of community colleges in the United States are private. The predominately public nature of these institutions largely reflects the roles they play, the populations they serve and the use of government funding to promote equality of educational opportunities.

THE APPEAL OF COMMUNITY COLLEGES: ACCESSIBILITY

To attract and maintain this clientele, the community colleges need to offer something different than the four-year institutions. The community colleges must emphasize that which the four-year institutions, either for financial or less tangible (e.g., reputation) reasons, cannot. In short, the community colleges must emphasize the very *raison d'être* of their creation: accessibility, broadly defined.

Tuition is a universal principle of U.S. higher education, whether public or private. State or government support also is a standard feature. In these respects, community colleges offer nothing new. Differences revolve around the participation of local governments—the *community* of community colleges. Unlike conventional public higher education, community colleges have a differentiated financing model. With some variations, the classic formula is 40 percent funding from the state, 12 percent federal funds, 18 percent local funds, 20 percent from tuition and student fees, and 10 percent from other sources, including the contracting of space and services.[8]

Insofar as community participation in the allocation of local government budgets is strong, community colleges respond to their communities. Local budgetary contributions lend legitimacy and help ensure that these institutions respond to local needs. Indeed, the communities can be tough customers, often demanding an annual accounting of results and public presentation of budgets and planned activities. After all, if the local government is to help pay the bill, its elected officials have to be convinced the college makes a positive contribution to the community.

The community college system is geared toward a lower-income clientele, and accessibility in terms of price is one of its most appealing features. Data compiled by the American Association of Community Colleges (2001) suggest tuition and fees at (public) community colleges average US$1,300 per year. This figure, in turn, is half the average tuition of public four-year universities (US$3,100) and a fraction of the cost of private four-year institutions (US$13,400). As with four-year programs, a significant share (about one-third; see Annex I) of students receive some form of financial aid, which is largely underwritten by the federal government. In the public arena, aid accounts for between 25 percent and 85 percent of student tuition. Scholarships and tuition discounts for qualified students further soften the financial blow.

It merits noting that financial aid is in addition to, not in place of, federal funds channeled directly to the institution and that students are not the only beneficiaries. In the absence of financial aid, most community colleges would find themselves in enough financial peril to threaten their survival. (Indeed, the same is true of their public and private four-year and post-graduate counterparts.) The availability of grants, low-interest student loans and work-study programs open the door of college study to populations who otherwise would not be able to afford the tuition. As will be discussed ahead, the payoffs are high.

One factor that helps keep course costs down is the use of part-time teaching staff. Community college instructors have fewer academic credentials than their counterparts at four-year institutions. Most hold master's degrees; a handful, particularly in those areas from which students routinely transfer into four-year programs, has doctorates. Most community colleges openly avoid hiring PhDs, even when such candidates

[7] Even so, there are an extraordinary number of similar courses that are offered by private educational institutions and companies, although they do not offer equivalent certificates.

[8] In Canada, the typical funding breakdown is 60 percent from provincial sources, 20 percent local support and 20 percent tuition and services.

are available (which is often the case). It is felt that PhDs lack the experience and motivation required for a course load as heavy as five courses per term.[9] According to some administrators, after spending so much time preparing a dissertation, PhDs are likely to become frustrated by the student profile and the unacademic atmosphere.

Accountability

Community college administrators are rightfully concerned about funding. As alluded to above, it is not automatic. Funding responds to outcomes. Community colleges are regularly called upon by legislators and society at large to demonstrate results. Yet many find themselves faced with the challenge of presenting their unique role and mission in the language and format required by state and federal bureaucrats.

Most states not only require community colleges to report results but also provide explicit guidelines regarding the form that such reports should take. Spearheaded by efforts from the National Governors' Association, most states require their community colleges to present information on student access, transfer programs and transfer rates, student satisfaction, occupational preparation relative to state and local workforce needs, and fiscal conditions of their respective communities and districts (Outcalt and Rabin, 1998). Some states (e.g., Florida and South Carolina) are taking these reporting requirements one step further: toward performance-based financing.

To meet reporting requirements, many community colleges have increased expenditures in institutional research, hiring additional staff to produce the necessary reports. Support also has come from the six regional accreditation agencies.[10] These agencies review their members every ten years, assessing their academic programs, facilities and governance methods.

Technical support, whether in-house or contracted externally, goes some distance in helping the community colleges comply with reporting requirements. Yet the bureaucratic parlance in such a format is not particularly well suited to capturing the accomplishments of community colleges. These institutions operate with a different set of inputs than regular colleges and universities and thus produce a different type of output. Given that admission is open, community colleges attract a wide range of students, including transient students, students with disparate abilities and academic goals, and students for whom English is not a native language. The faculty also differs from that at four-year universities. An estimated two-thirds of faculty at community colleges are adjunct and many have other jobs as well.[11]

In much the same vein and consistent with their mission, community colleges often find themselves involved in issues and dilemmas facing the community as a whole. Community colleges are not isolated islands of learning, physically located in the community but with their sights on other realities. Witness welfare reform. Many community colleges have become key players in local responses to welfare reform, providing skills and vocational training to populations with limited levels of education. According to the American Association of Community Colleges, an estimated 48 percent of community colleges offer welfare-to-work programs. Of those that do not, 54 percent plan to offer programs designed specifically for welfare recipients. The four-year institutions, falling back on their missions to provide a course of study leading to an undergraduate or graduate degree, rarely enter the picture, even if located in the same community.

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[9] Union rules limit teaching in Canada to a maximum of 15 hours out of a total of 37 per week.

[10] The Commission on Higher Education of the Middle States Association; the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges; the Commission on Colleges of the Southern Association of Colleges and Schools; etc.

[11] This reflects the mission of the community colleges, which is to provide market-ready skills. In fact, community colleges clearly and deliberately refrain from systematically promoting research. Only 4 percent of their faculty is engaged in research, a far cry from the "publish or perish" attitude permeating the halls of academe. In the words of the president of Northern Virginia Community College, "I think there is a place for researchers and thinkers ... and a place for the worker bees..."

Seen in this light, indicators widely applied to determine the internal and external efficiency of educational institutions (e.g., graduation rates, semester-to-semester retention rates, faculty salaries, library endowments) do not (and cannot) provide an accurate representation of community colleges. Regardless, the burden of results-oriented proof remains on the community colleges. And the justification for this is clear: to serve their communities well, the community colleges must open their doors to any and all seeking admission. Thus, the accountability of community colleges is less likely to be measured by test scores or faculty publication records and more by the extent to which the institution provides services appropriate to and in line with the needs of the community.

This is not to suggest that more *objective* evaluation criteria do not exist. For one, if courses taken at community colleges are to be transferred and used to fulfill requirements at four-year institutions, such courses must adequately prepare students for further study.[12] For another, students choosing to enroll in the vocational/occupational tracks expect the quality of their training to be commensurate with the standards and certification requirements established by professional boards and required by industry. If not, their very employability—and *raison d'être* of study—may be compromised.

Economic Benefits for Students

Education makes a difference. Comparative data show that courses completed at community colleges lead to better job performance and pay, providing job-ready skills that, by some accounts, lead to a 15 percent improvement in performance. In addition, the data also show that each additional year of coursework completed results in a 5 percent to 10 percent increase in wages. More importantly, initial gains do not dissipate over time. According to the American Association of Community Colleges, average expected lifetime earnings for a graduate with an associate's degree exceeds US$1 million, about $250,000 more than an individual with only a high school diploma. Students who have completed part of the coursework but fail to finish their degree program earn 10 percent more, on average, than workers with only a high school education. Compared with four-year programs, such results are proportionate to the extent that they are equivalent to the sum of increases accruing from each additional year of study.

More immediately, there are many instances in which two-year programs can lead to well-paid jobs. Average starting salaries for the graduates of the top five programs offered at community colleges compare favorably to the average salary of graduates from four-year institutions (US$36,259; see www.jobtrack.com): dental hygiene ($31,750), manufacturing processes technology ($30,675), telecommunications or interactive information specialist ($29,268), and physical therapy assistant and registered nursing following closely behind (American Association of Community Colleges, 2000).

In sum, the economic results are respectable and begin to be felt after only a few months of course study. It is precisely such rapid returns that make these courses attractive to students who are not able to devote much time and money to higher education.

Social Mobility

Community colleges are powerful vehicles for social mobility. These institutions typically attract students who may be unable to support themselves over a four-year period of study, especially to obtain a degree that cannot be considered occupational preparation *per se*. These colleges tailor their mission and procedures to meet the demands of this clientele, maintaining a clear policy of open enrollment and requiring only a high school diploma to enroll (although some programs do not even require this). Curricula are grounded in realistic approaches to teaching and tend to make greater use of innovative teaching methods and technologies (discussed ahead). Studies also have shown that community colleges offer more personalized attention to students than do four-year institutions.

[12] Current estimates suggest 35 percent of all community college students opt for this track of study. See Chase, 2000.

In catering to this clientele, community colleges compensate for shortcomings in other parts of the system, particularly at the secondary level. In fact, high school equivalency programs for school dropouts constitute a main line of activity for many community colleges: an estimated 41 percent of all community college students take at least one remedial course.[13] A survey conducted by the Center for the Study of Community Colleges found that 7 percent of all for-credit courses in a sample were remedial. Twenty-nine percent of all English classes were at the remedial level, as were 32 percent of math classes (Striplin, 2000).

Some researchers have leveled serious attacks against community colleges accusing them of lowering students' ambitions and funneling them directly into the job market (i.e., *cooling out* poor students by channeling them away from conventional forms of higher education). Yet many of these same people forget that, in the absence of the community colleges, some of these students would not have access to higher education. Indeed, "compared to students who first enroll in a four-year college, community college students are more likely to be the first in their family to attend college and are much less likely to have parents who have graduated from a four-year college" (Kane and Rouse, 1999:66). Thus, whereas community colleges may stunt the academic careers of a few students who otherwise may complete a full course of study at a four-year institution, a share—likely significant—would not be studying at all if it were not for the practical and immediate (even compensatory) nature of the education offered by community colleges.

Herein lays the worth and the innovation of community colleges, as well as what makes them enlightening for Latin America. Community colleges provide quality education focussing on the needs of a clientele different from that generally found in four-year institutions. Community colleges cater to students who are already in the workforce, are constrained by time and financial considerations, or are in need of specialized (including remedial) preparation.[14] They offer an education tuned to the needs of this clientele and do so successfully.

THE CHANGING FUNCTIONS OF COMMUNITY COLLEGES

The original purpose of community colleges was to allow students from smaller cities to complete the first two years of post-secondary education in their hometown. Since course content at this level was basically the same for all majors, there was sufficient economic justification to operate with the smaller enrollments than would be required for the multiplicity of careers offered at a four-year college. Yet the notion and practice of a "comprehensive college" gradually has emerged. These are complex institutions, where the transfer function coexists (not always the primary function of the school) with technical and vocational training, remedial education, contract training for firms, continuing education, and recreational learning. Witness the distribution of degrees conferred in 1996-1997: 167,000 degrees awarded in general studies/humanities; 77,000 in health professions; 72,000 in business management and administration services; 20,000 in engineering-related technologies and 17,000 in protective services (American Association of Community Colleges, 2000).

Other considerations enter and complicate the picture, pushing the notion of *comprehensiveness* towards one of *contrast*. Increasingly, community colleges are seen as a convenient option for jump-starting a four-year degree. Thus, on the one hand, community colleges admit high school dropouts looking for a second chance and high school graduates unable to make the cut for university study. On the other, however, they recruit fast-track high school students wishing to enroll while they are still in their junior or senior year of school. Those opting for such *dual enrollment* clearly are not the

[13] Some students (e.g., those taking English as a second language courses or those coming out of urban high schools) have not achieved an eighth-grade reading level and thus have to take additional remedial courses; English grammar, for instance, is taught at the seventh-grade level (Chinni, 1999).

[14] Although, as will be discussed ahead, community colleges also serve the other end of the spectrum: high school students looking to "jump-start" their university studies.

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academically challenged clientele often associated with community colleges.[15]

Nor are the growing numbers of graduates of four-year programs and people with graduate degrees who seek applied technological training unavailable through traditional academic programs. Community colleges are increasingly attracting professionals looking for a career change. Many of these are established in their careers and have obtained the requisite academic degrees (an estimated 30 percent have bachelor's degrees), including at the graduate level. The community college format is well suited to accommodate their needs in that they offer the flexibility needed to combine work and continuing education. Some, of course, are looking for very specific training, e.g., in such areas as computers and information technology.

Community colleges, in a sense, also give substance to the notion of the *melting pot*. In areas with high percentages of immigrants, community colleges are a portal of entry for people without the level of English language skills required for regular university study. Along the Mexican border, for instance, more than 50 percent of students at some community colleges are native Spanish speakers; countrywide, enrollment of foreign students or immigrants averages 15 percent. As points of comparison, an estimated 8 percent of students at four-year institutions are Hispanic; just over 3 percent are foreigners (NCES, 2001).

THE VAST SYSTEM OF VOCATIONAL EDUCATION

Another core function of community colleges is vocational education. Indeed, this area has seen the most growth in recent years and has provided the community colleges with a niche. At the beginning of the twentieth century, the United States took a drastic step, opting for the so-called *comprehensive high schools* (not to be confused with comprehensive colleges, above). The voices of those who wanted to see vocational schools established alongside academically oriented schools—the status quo in Europe—fell on deaf ears. Rather, the United States opted for a model offering various options under a single roof, depending on the skills and interests of the students. More academically inclined students could take a more varied and rigorous schedule, often focusing on courses in science, math and writing. For less ambitious students, less demanding courses also would be available, as would vocational training. In effect, then, U.S. schools accommodated a range of tracks, from general education to technical curricula.

At the time of its inception, the system had its merits, especially in matters related to vocational education. In a country where manual labor has been held in comparatively high social esteem, the commingling of manual and intellectual activities has been less problematic than in other societies (e.g., European) where differences of class and social category are more pronounced. The model was exported as far as the sphere of influence of the United States reached.

With time, the attractiveness of the model waned. At home, equity concerns were compromised. Rather than providing equal education for all, the model provided a convenient means for students to be profiled and tracked into different courses of study. Those who did poorly in science and the humanities were *pushed* towards vocational training. The more academically demanding and rigorous subjects (e.g., the sciences and humanities) thus acquired greater status and the *comprehensive* nature of high school education faded. With the increasing complexity and theoretical development of many technical professions, the amateurish quality of training provided at high schools lost its relevance and ability to respond to the economy's needs.[16] Abroad, the model proved to be a major disappointment, despite its backing by powerful players such as the World Bank.

[15] It should be noted that considerable debate surrounds this notion *dual enrollment*. At issue is whether a learning environment dominated by working adults and students with disparate abilities is appropriate for *fast-tracked* youth and vice-versa.

[16] Recent experiments (e.g., Tech Prep) have tried to fix some of the limitations of vocational training in high schools. And, in fact, some of these attempts (again, for example, Tech Prep) have been quite successful. Notably, however, the reach of such programs remains limited.

Community colleges gradually have been moving to fill this void. Vocational training has migrated to a higher level and community colleges have been at the receiving end of this migration. Vocational training through two-year programs at the post secondary level is steadily replacing vocational courses at secondary schools. This is probably a valuable niche that community colleges occupy today. "What in the world could we be doing that is more important than getting people ready to make a living? It's got to be greater than studying culture and the arts. It has got to be linked to how the person makes a living and feeds their family" (Baker, cited in Naughton, 1999). And this is an area where Latin America can draw interesting lessons.

Associate degrees and shorter programs combine academic classes with those highly focused on real world occupations. These academic subjects are quite similar to those taken by students attending regular four-year programs. The challenge in all vocational programs—and community colleges are no exception—thus is to obtain synergy between the academic and the vocational. It is in this regard that vocational programs have great potential to *contextualize* the more academic concepts and bolster the durability of skills taught in and through occupational training. If well done, students entering the program with lower scholastic aptitude can master academic contents better than if they were to take purely academic courses. The extent to which community colleges fulfill this potential remains debated and variation between these institutions complicates any meaningful generalization.

Yet, one way or another, the community colleges have become the occupational training providers of choice in the United States and Canada. And evidence to date suggests they have been quite successful.

CONTRACT TRAINING

In conjunction with vocational training courses offered directly to students, community colleges increasingly are entering into agreements with companies to train future and present employees. In contrast to regular curricula that often are determined jointly by the community college and relevant business sector(s), curricula for corporate training courses are determined solely by the contractor. Fully 95 percent of community colleges have such arrangements with companies or the government and at least one-fifth of all community college students are studying under contract with an external organization.

In a way, the community colleges have become enterprises that sell their facilities, infrastructure and the organizational *know-how* for delivering courses (in this sense, they differ little from the best Latin American technical schools and universities). Oklahoma Community Colleges are a case in point. In addition to workshops constructed and maintained by the community college, there were others that had been constructed by Nissan, Ford, Toyota and General Motors. Each of these also included a school to train technical and managerial staff from dealerships of the respective companies. In the Ford building, students were disassembling Ford cars, studying Ford manuals, using tools selected by Ford, and following syllabi prepared by Ford. The same process was repeated in each of the other workshops. The given company decides on the course content, class times, and materials; the community colleges provide—rent out—the space. Some companies even have paper shredders in the classroom for instructors to destroy manuals after class and thus ensure confidentiality.

The major auto manufacturers are not alone in their partnerships with the community colleges. The trend among major U.S. companies is to close their on-site training centers and move everything to community colleges. Caterpillar and Boeing have been moving in this direction. Such contracts serve the community colleges well insofar as they help bring them closer to industry and place them in a privileged position for understanding their market needs.

INNOVATIONS IN TEACHING

It merits noting that most major pedagogical innovations are hatched at community colleges. Granted, not all of these institutions are *foci* of innovation or creative initiative, but if there is one place where innovation does tend to exist, it is in the community colleges. Conventional four-

year programs repeat conventional teaching methodologies and, in general, the higher the status of the institution, the more conventional the methodology. Harvard and Yale, for instance, work almost exclusively on the basis of blackboard and chalk. The Media Center at MIT is the world's most advanced laboratory in terms of state-of-the-art teaching technologies. In the classroom next door, however, the professor lectures on the latest theories by consulting notes scribbled on pieces of paper and copying words or formulas on to the blackboard.

Community colleges, contrarily, are paradises of new teaching technologies and innovations. In fact, some do not have a single traditional classroom. On the first day of classes, students in such institutions are assigned to a workstation equipped with a computer, a videocassette player, and a syllabus outlining the sequence in which class work is to be done. The teacher monitors the situation, walking among the students and discussing problems with each student. Those who advance more quickly finish the course sooner.

Community colleges are more likely than traditional four-year universities to make use of cutting edge teaching methods and innovations. As Kerr points out, community colleges are virtually the only institutions of higher learning that continually produce solid advances in teaching methods, use of computers and applied academics (see also Hull, 1999). Distance technologies are illustrative in this manner: more than 400,000 students at community colleges take courses via distance learning. An estimated 78 percent of community colleges offer at least one distance education course. Many offer more. The average number of distance education courses per institution is 20, a figure that, in some cases, reaches 67 (Striplin, 2000) and in most cases far exceeds that found among traditional four-year universities.

Few, if any, community colleges lack access to the Internet. Many house business incubators and have for-credit options that include internships at local companies or the actual running of enterprises within the school. Given this proximity to industry and enterprise, community colleges are in a privileged position to track the market closely, following developments and adjusting their course offerings accordingly. Decisions on course offerings hinge on input from business committees (each committee representing a specific branch of industry), and representatives of these committees often serve in administrative capacities (e.g., on Boards) within the schools.

Some schools require that teachers keep track of where their former students are working. If they do not find a job, it is viewed as the teacher's fault. And if the placement rate does not reach a preset minimum level (e.g., 75 percent), the problem is investigated.

Courses can be quite sophisticated, such as a pilot plant for manufacturing semiconductors; the same school, however, could offer courses in shoemaking or leatherworking. If there is a market, there is a course for it. The corollary is even truer: if there is no market, then there are no courses. Since students always have to make some sort of payment (usually one third the total cost), enrollment is a good market indicator. It is no secret that students are more interested in the market when they have to pay, even if only part of, the cost of their education.

LIFELONG EDUCATION

Given the community-based nature of financing and decision-making, community colleges offer courses to students of all ages. It is commonplace to find auto mechanics or avionics maintenance side-by-side with basket weaving, upholstery, embroidery or any number of other *recreational* classes largely attended by senior citizens. The provision of these classes clearly is a social function and is of incalculable value. It is not vocational training for a profession, but rather *training* for a hobby, occupying the time of retirees through veiled or open methods of occupational therapy. Considerable time and resources are devoted to these activities: community colleges often have as much as 20 percent of the local population registered for courses in any given year. Course catalogues are prepared each semester, covering a wide variety of interests and duration, and are mailed out to the entire community.

Good for the United States: Good for Latin America?

The safest answer to this oft-asked question is that there is no single answer that applies to all situations. It all depends.

A key assumption of this paper is that community colleges hold significant possibilities for education in Latin America and should thus be the subject of careful study. A second point is that some features offered by community colleges are more relevant to Latin America than others and no principle can be replicated point-by-point in other contexts. For one, public sectors across the region lack the necessary flexibility and dynamism to operate such comprehensive and flexible institutions. And without public subsidies, the private sector would be unable to offer what community colleges (nearly all of which are run by the public sector) normally do.

SHORT-DURATION COURSES AND SOCIAL MOBILITY

Frustration with the lack of response of universities to the needs of society is mounting throughout Latin America. Despite the surge in university enrollments over the past 20 years, higher education continues to be accessible largely to the privileged segments of society. Moreover, Latin American universities rarely have seen their missions encompassing anything other than academic education, and when they have ventured in the field of short technical programs they have generally *academicized* them to the point of making them irrelevant to the immediate requirements of the workplace. By and large, universities have not done a good job of fostering partnerships with either local communities or industry and businesses. Much the same can be said about the region's technical training institutions at the post-secondary level. With few exceptions (e.g., SENAI), links with industry and business for curriculum development and technical assistance provision also have been weak or absent and there has been little flexibility in program design and delivery. Nor has much effort been made to provide general education in tandem with technical skills; the possibility of transferring credits earned to a university program remains nonexistent.

There is considerable urgency to resolve these issues. As the coverage and quality of secondary education across the region remain high for the few and rather poor for many, the diversity in talent and preparation for post-secondary studies among high school graduates will increase. Some will be willing and able to undertake traditional university programs, some will be unable to do so without further preparation or will prefer to enter the labor force a soon as possible with something more than a secondary school diploma.

Such diversity will be the hallmark of the new clientele for higher education. This is the profile of new social groups nearing the end of their secondary education and looking at the options higher education provides. And societies across the region will have to respond in kind, diversifying post-secondary education to accommodate new needs and new populations. To continue offering more of the same would not only be extremely shortsighted. It would be wrong on equity grounds.

Higher education throughout Latin America remains ill equipped to deal with students of diverse backgrounds and interests. The types of courses offered by community colleges, however, may be ideally suited for filling this niche because their program mix contributes to a better match between study opportunities and student needs and capacities. It also combines flexibility in schedules and pedagogy with modest tuition levels and proximity to labor markets that ensures relevance of course offerings. Notably, the

last of these benefits, orientation to labor market demand, is particularly appealing in that it serves two other worthwhile items on the agenda for higher education reform in Latin America. Closeness to the labor market acts as a quality control mechanism, reinforcing on the outcomes-side what accreditation and similar regulatory mechanisms achieve on the input and process sides. Secondly, a close link to employers prevents institutions from becoming solely or overly reliant on public funding, forcing them to attain a healthy structure of revenues in which private funding is an indispensable part.

Postulating the need for community colleges in Latin America is a delicate issue. Consider a likely accusation. The wealthy offspring of the privileged classes will be able to pursue a university education in traditional careers that will prepare them to take over the reins of economic, political, and intellectual power. Since the poor are only now coming to the doors of higher education, let's give them something simple and unpretentious to keep them content so they will not bring down the level of our elite, public universities.

This is not an exaggeration. It essentially sums up the situation found in those countries in the region that are more educationally advanced and quite accurately echoes the experience of countries outside the region. Cyrilla Vessey, dean of students at a U.S. community college is unequivocal (cited in Naughton, 1999): "Most of us are cognizant that people are looking for a way to make a living, not necessarily becoming cultured. They want to get through their business and computer science courses and get out there and get a job. At least some of them think that studying liberal arts is a waste of time."

All countries grapple with serious equity issues, and educational policies are structured accordingly. No system offers a one-size-fits-all approach to higher education. That said, however, there are limits to what schools, including the elite, can accomplish. By the time students reach post-secondary education, differences in interests, priorities and, most importantly, scholastic aptitude are evident. Even the most expensive schools cannot compensate for or counterbalance the weight and influence of factors, socioeconomic and otherwise, commonly associated with educational attainment and performance. The best that can be done in an imperfect world is to design schools that are able to build on and expand each student's talents and potential.

Keeping these considerations in mind, there appear to be only two options for Latin America, at least from a practical standpoint. Either provide differentiated education, with all the nuances of varying student profiles, or provide equal schooling for all, an option that is likely to lead to a more dysfunctional, even hostile, system for students with less-than-optimal educational backgrounds. Other options have yet to be found.

In Latin America, debates on these issues have been monopolized by those who prefer the comfort of utopias to the discomfort of the real world. It is wishful thinking to expect that the countries of Latin America could create a fairer system than the ones already created by countries that have considerably more resources allocated to education and a stronger commitment to equal opportunity. If these countries have found it necessary to create a divided, differentiated system of higher education, how can Latin America hope to do otherwise?

The position taken by the authors could be expressed in more diplomatic or politically correct terms. The bottom line, however, is that options in and access to post-secondary studies matter. Barring the ideal, it is better to have short courses of studies for some and longer courses for others than to have, for example, long courses of studies for the rich and nothing at all that will suit the poor. For this dual solution to be ethically acceptable, every effort needs to be made to ensure that screening is based on scholastic aptitude rather than socioeconomic background or entitlement. Elitism should be intellectual, not socioeconomic.

POOR SECONDARY EDUCATION FOR THE POOR: SIMILARITIES WITH LATIN AMERICA

Most European countries have rigorous examinations at the end of the secondary cycle. Students who do not pass are channeled towards

vocational training, technical courses, or apprenticeships, none of which allows for easy access to university-level education at a later time. The community colleges in the United States emerged as a reaction against this type of early determination, as a more flexible career-oriented option for students who may not have made the grade in a rigid, high-stakes exam. In this regard, the community colleges can be seen as a subsystem of higher education that compensates for the poor quality of education offered at the secondary level. Considering that many graduates of secondary schools across Latin America often do not master the official curriculum (for various reasons), community colleges would seem to offer a more viable option than Germany's *Fachhochschulen* or France's *Instituts Universitaires de Technologie (IUT)*, especially since these institutions have rigorous conditions for entry.

INNOVATIONS IN TEACHING: EVEN MORE IMPORTANT IN LATIN AMERICA

As suggested above, the structure of community colleges and their proximity to the labor market lead to innovations in pedagogy and teaching methodologies. The implications of this for Latin America are many. Technological advances hold out vast potential for the education field. In wealthy countries, computers, television, and other tools are among the more available luxuries to be adapted to education, often if for no other reason than because they simply exist. Latin America lacks many such luxuries. Yet, it can and needs to make more rational use of available technology, harnessing it to overcome limits in high-quality human resources that allow a good education to be provided across the board.

Technology broadens the scope of influence of excellent instructors and materials, much more so than would be possible through conventional formats. For example, a class taught by an excellent teacher and recorded on video could be reproduced for thousands of students at negligible cost. Seen in this light, the use of new technologies in education is neither a luxury nor the culmination of a process of pedagogical enhancement. It is an emergency exit, a way to replicate successful experiences quickly.

Again, the community college model provides an interesting and thought-provoking case. While four-year schools tend to be conservative in their teaching methods, community colleges are a major source of inspiration. The education they provide tends to be innovative, with the use of technology figuring prominently among pedagogical tools and supports. Community colleges are not pedagogical laboratories where constructivist professors meticulously try to reinvent the world's knowledge or where a chosen few theorize about concepts too abstract for real-world application. Community colleges tend to take a different approach, preferring to deliver as much education as possible to as broad a segment of population as possible. Technology helps. It extends both the reach and scope of what is learned and by whom.

THE MARKET IMPERATIVE

Institutions of higher education across Latin America have been plagued by a lack of response to market needs. Fewer and fewer graduates of four-year universities across the region are finding work in their major fields (see IDB, 1998). On the one hand, the region is plagued with unmet needs for new skill profiles and, on the other, with an excess of graduates in fields for which demand long has been exhausted. It is here where the experience and lessons learned from community colleges appear to be particularly applicable to Latin America. By continuously adjusting courses to market conditions (from expansion, to contraction, to change in occupational profiles) the community colleges seem to all but ensure that graduates will stand a good chance of getting jobs in their chosen fields of study. This is strong and effective medicine. After all, most students who attend community colleges do so for the immediacy of expected benefits in the labor market.

This is no minor consideration. Indeed, if Latin America could learn only two lessons from community colleges, this would be one: relentlessly adjust course offerings to market changes and imperatives. The other, as suggested above, would revolve around how to realistically deal

with students of diverse backgrounds and disparate abilities.

DEGREES AND STATUS

When talk turns to human capital and investments, there is a tendency to focus on the aspects of education that can have an impact on productivity and overlook the contribution of sociologists. Actually, the decision to continue one's studies is influenced deeply by the symbolic value of a degree. A degree brings status, which is a perception of self-worth or a feeling of belonging to a higher level of society. Indeed, higher education is about much more than just rates of return on an investment.

There is no intrinsic value in any specific name: the distinction between *post-secondary, higher education* and *university* is all in the eye of the beholder. There is nothing inherent in any of these terms; use alone will define them. No amount of tweaking will create meaning where there is none. Yet the name given to the degree does affect individual behavior and does carry certain implications. For example, the British probably got it right when, with one swoop of the pen, they changed all their *polytechnics* into *university colleges*. Cost-free, simple, and painless. Schools everywhere soon followed suit, adding that magic word to their name: university. The *colegios universitarios* in Argentina provide another case-in-point. As of 1995, the nation's 1,800 nonuniversity post-secondary institutions (*terciarios*), the majority of which are public, have been permitted to enter into partnership with universities to offer their students transfer programs. A *terciario* with a transfer agreement with a university—which entails a supervisory relationship—can call itself a university college. To date some 300 *terciarios* have been transformed into university colleges (see Taquini, 2000). Courses that are viewed as leading to less prestigious degrees, contrarily, may fail to attract potential candidates.

Obviously, the name given to a community college in Latin America or elsewhere will not be the definitive factor upon which the success or failure will hinge. Other factors will weigh heavily. For one, expectations of the promise of community colleges will have to be met with concrete results. Quality will be important. In countries where enrollment in shorter (e.g., two-year) programs has become significant, community colleges could be a means to increase prestige. For example, enrollment in two-year courses of study in Chile and Argentina currently hovers around 40 percent of total enrollment in higher education. For many of these students, choice of institution reflects supply and demand: the demand for high quality, job-ready skills is great; but the supply is limited. Thus, working on the assumption that some training is better than none, courses—irrespective of their quality—continue to draw students.

Community colleges could up the ante on the prestige side if they were able make a strong link between courses and sound occupational preparation. In a very real sense, this is exactly what has given SENAI and other members of the "S" system in Brazil their prestige. The need to solidify this link is made even more important insofar as a large part of the target clientele of a community college is a *captive audience*. The fact that this population, for many reasons, falls outside the university system removes the imperative of providing them with viable options for study at the post-secondary level.[17]

To reiterate a point alluded to above, nothing attracts customers like good quality. Reticence to enroll in short programs may be due to a perception—entirely accurate—that existing programs have little to offer by way of marketable skills. In this scenario, students are not evading vocational and technical schools for considerations of status but rather because they are rational consumers. They understand that while the chances opened by a university degree are a function more of having the degree than of what one has learned in the process of getting it, the opposite is true with technical diplomas. Therefore, an investment in a degree without skills, as justifiable it might be in the case of a university

[17] For those who chose to continue study towards a four-year undergraduate degree, a functioning transfer system likely would solve the prestige/reputation problem. Study at a community college would be seen as the first step in what would ultimately be a university program (discussed in further detail ahead).

degree, is an entirely useless outcome of a technical program.

To sum up, degrees are important; they have a high symbolic value. Therefore, policymakers are well advised to create appropriate names and certificates for such courses. Yet, ultimately, students are reasonably rational beings and put a strong weight on the financial benefits derived from the good fit between training and jobs.

BRIDGES TO FOUR-YEAR PROGRAMS

It is common for North Americans to tout the merits of the transfer function played by the community colleges. Transfers, the process by which the first two years of study taken at a community college are transferred to a four-year program, are widely applied in North America. To facilitate such a process, some public universities have established branch campuses within the campus of a community college, making it possible for transfer students to continue their junior and senior years at the same location where they obtained their associate's degrees. Recently, a new twist has been added: community colleges, particularly those in the Northeast, are offering two-plus-two programs, awarding both associate and bachelor degrees.[18]

It merits noting that no transfer functions automatically. Each is built on a program-by-program and university-by-university basis. Curricula need to be negotiated, as do the terms and conditions of transfer. Indeed, the level of detail and negotiation required has led community colleges to create transfer offices, responsible for removing all possible obstacles to transfer from two- to four-year courses of study. In some instances, this is achieved by bureaucratic and institutional considerations (e.g., code-sharing of courses for transferable courses). In others, institutions agree to mutually recognize entire programs (e.g., biotechnology; some computer programs).[19]

Whereas such transfers are feasible and justifiable across the United States (and to a lesser degree in Canada), the situation in Latin America is eminently different. And misdirected efforts to promote the transfer function have created problems, some of which continue to linger. The case of Brazil is illustrative in this manner. The first *operational engineering* courses offered were created according to the philosophy that they should provide some sort of bridge to regular engineering (see Castro and Spagnolo, n/d). In order to make short course curricula equivalent to what four-year students take in their first two years, the first two years of study were designed to clone standard courses taken by four-year students. While easily justified on a theoretical level, concrete results proved to be less than optimal.

In making courses taken by technicians equivalent to the first two years of engineering education, two-year programs became unnecessarily bogged down with theory, leaving insufficient time for practical training. Graduates from these (shorter) programs thus lacked any meaningful practical training. They gained neither the necessary practical background that would enable them to find a job nor the necessary preparation in math and physics found in regular engineering schools. All in all, what could be termed a *bridge* in other contexts, functioned as little more than a mini-course in engineering, one in which both theory and practical training were sacrificed. The implications were serious: not only was technical training shortchanged in name of making students *university ready*, the courses' practical training content—i.e., that necessary *reality check*, the mechanism which serves to align courses with market demand—was lost.

The Brazilian case serves to illustrate the obstacles to transfer in Latin America. The problem

[18] It should be noted that transfers are not restricted to those who obtained an associate degree in general education or humanities. Graduates from technical tracks can transfer as well but, given the applied nature of their instruction, it is likely that they will be required to take extra classes, called *bridges* in Canada, to acquire the academics of the next level of education. This is why vocational and technical programs, in general, are not considered to be *terminal*.

[19] In some cases (e.g., engineering) bridge courses may be necessary. In other cases (e.g., biotechnology; computer programs), however, the trend has been towards the transfer of courses or programs without a bridge.

ultimately lies with the highly structured and vocational nature of university programs and the extent to which the universities dominate higher education. Throughout the region, curricula tend to be professionalized from the start. Rather than taking a common set of courses for the first two years (as is the case in the United States, for example), students entering university in Latin America generally take discipline-specific courses throughout their entire course of study. Two years of liberal arts or vocational courses (again, as in the United States) simply would not have enough overlap with the first two years of law, psychology, engineering or veterinary medicine as offered in the region. Thus to obtain a transfer, either the two-year courses would have to be overburdened with theory classes or the four-year courses would have to include more general and optional subjects in the first two years.

With few exceptions (e.g., UNICO in Mexico and the *colegios universitarios* in Argentina), little progress has been made along these lines to date. Obstacles to transfers in Latin America are political and economic in nature. Low-prestige courses have been unable to persuade four-year courses to change syllabi. And, given the political power universities wield in funding formulae, four-year programs are unlikely to change in order to accommodate the needs of the students from short programs. Notably, however, due to shortcomings in level of academic preparation at the region's high schools, there appears to be a trend towards the deprofessionalization of curricula, at least in the first year of programs four to five years in duration. In these cases, program-specific orientation is giving way to an emphasis on general education. If this trend continues, the problem of transferability may be partially solved.

CERTIFICATION AND ACCREDITATION: THE INTRICACIES OF LATIN AMERICA

The United States has a long tradition of certifying students or officially accrediting courses.[20] Many systems are voluntary (e.g., certification of auto mechanics), often maintained by labor unions (e.g., the construction industry) or professional associations (e.g., ABET for engineering technology programs; NLN and AAPT among others, for health care; AVMA for veterinary studies). Community colleges, for their part, are regionally accredited by the same commissions responsible for accrediting four-year colleges and universities. This is necessary for transfer degree programs, if for no other reason.

Regardless of these mechanisms, however, many professions served through the community colleges lack anything comparable to the rigorous systems of certifying virtually all occupations found across Europe. Few occupations in the United States, whether requiring study at the post-secondary level or not, are governed by the types of stringent legislation or agreements found on the other side of the Atlantic. This is one reason why courses at the community colleges can be created and changed so freely. Such a system has its obvious advantages, especially in new fields where technology rapidly changes. Furthermore, it opens the field for experimentation and incremental changes in curricula, programs, and content.

The situation in Latin America is somewhat different. The regulated professions are mainly those requiring four or five years of university preparation. The so-called "technical professions" have not yet been taken over by (market) entry restrictions based on diploma. The construction industry is perhaps the one most fraught with professional certifications and regulations. The newer fields—e.g., information technology—remain largely unregulated.

Following from this, anyone interested in offering courses in regulated professions essentially has one important decision to make: follow the official curriculum and accreditation, or leave these considerations aside and risk the test of the market? On the side of officialdom is the comfort, peace of mind, and dubious benefit of being able to say that the course follows official

[20] Exceptions, including those fields that pose risks or security issues for service users (e.g., health professions, airline pilots and mechanics, truck drivers), fall to and are governed by federal and state systems for individual certification.

guidelines. The other side of the coin is that these curricula are always outdated and, when all is said and done, one still has to pass the market test.

But accreditation of one- or two-year programs in Latin America follows no single pattern. There are restrictive and lax procedures, old and new systems. All possibilities can be found somewhere. Venezuela created its accreditation system several years ago. Brazil is putting the finishing touches on its new set of standards. Indeed, given such a varied set of systems, it would be difficult to make meaningful generalizations for the region. Perhaps the best one can say is that overall the accreditation and general regulations are not particularly enlightened. This is an area where several countries will have to do the initial work of fix the older systems.

WHOSE MOVE IS IT: THE PRIVATE OR PUBLIC SECTOR?

Higher education in Latin America is in the midst of a serious crisis brought on by legislation that has created both distortions and limitations. Costs may be too high for what many courses actually achieved or the possibilities they generate. Across the region the model to follow needs to be flexible, able to adapt to situations and clienteles in ways that the public sector cannot. This is no easy task. In some countries, public universities voice strong opposition on ideological grounds to any change in the focus and mission of higher education. The private sector, by default, thus will be left to take the lead in reshaping higher education. Given the public sector's lack of funds, hesitation to spur innovation, change paradigms, and upset the status quo, if change is to come, it will have to be spearheaded by the private sector.

That said, a full-fledged implementation of the U.S. community college model cannot come from the private sector. It simply does not have the capital to do. Full-scale implementation of community colleges across the region would require unending sources of funding in that the core clienteles served come from disadvantaged socioeconomic backgrounds. Without the participation of the public sector, then, implementation of the model will remain partial.

In order to establish any serious community college, sizeable investments need to be made in curricula development, the preparation of teaching materials and textbooks, and teacher training. In the absence of these investments, most of which came through the public sector in Europe and the United States, the effort becomes an exercise in improvisation. The experiences of Argentina and Chile are instructive in this manner. As many responsibilities for post-secondary education were transferred to the private sector, quality suffered. Shortsighted and tightfisted approaches to delivering training led to a situation where many courses were improvised and shallow. Teachers were unprepared and curricula and texts were of unacceptably low quality. This has been a dangerous precedent in that it has marred the status of an area of training that has not been consolidated and has yet to affirm itself and establish a reputation (see Castro and Navarro, 1998).

In conclusion, the public sector has an undeniable calling in supporting one- or two-year courses. Under current conditions, however, it is highly unlikely that the public institutions will be interested or tempted to take a significantly more proactive approach. This leaves a vast market open for the private sector, which conceivably will be the fastest growing segment in the coming years. In much the same vein, it would be unrealistic to expect the private sector to tackle this task equipped only with its own financing, especially since short-duration courses are normally offered by small-scale operators serving an often less than *profitable* clientele. As is the case with small businesses in general, public subsidies will be necessary in order to defray the start-up costs involved in creating quality courses with good materials and properly prepared instructors.

Community Colleges:
A Viable Model for Latin America?

Yes, albeit with some caveats.

Latin America is not likely to be able to replicate all the details of the model. From a financial perspective, the private sector has limited capabilities to cover all costs, particularly the heavy initial costs of preparing materials and training teachers. The public sector is limited as well. Stifled by Byzantine legislation, flexibility is severely limited and collaboration between public agencies—even those within the same ministry—remains the exception.

That said, the model is appealing for several reasons. The community colleges serve a clientele that, without a doubt, is the upcoming clientele of higher education across the region. It will be incumbent upon governments to find and implement viable options that satisfy the demands of these populations for further study and sounder job preparation at the post-secondary level. Indeed, the focus of the community colleges on market-ready skills not only provides a direct link between school and work; it also has the potential to raise the profile and prestige of short courses throughout. After all, if the community colleges are unable to mitigate such prestige issues, supply problems will persist; and the viability of the model will be called into question.

The North American experience with community colleges gives Latin America much food for thought. The model has proved to be an innovative response to expand the reach of tertiary education. It is also a model that has produced notable results. It thus holds very real potential to inspire Latin America to create its own version or to use some of the ideas that were successful in the Northern Hemisphere.

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Annex

Community Colleges in the United States: A Snapshot

Enrollment:

- 10.4 million students (5.4 million credit; 5 million noncredit)
- 44 percent of all U.S. undergraduates

Number of Colleges:

- Public: 995
- Independent: 137
- Total: 1,132

Student Profile:

- 46 percent of all African American students in higher education
- 55 percent of all Hispanic students in higher education
- 46 percent of all Asian/Pacific Islander students in higher education
- 55 percent of all Native American students in higher education
- 46 percent of first-time freshman
- 58 percent female; 42 percent male
- 64 percent part-time; 36 percent full-time (12 credit hours or more)
- Average student age is 29 years

Students Receiving Financial Aid:

- Any aid: 32.8 percent
- Pell Grants: 15 percent
- State aid: 6.1 percent
- Federal loans: 6.0 percent

Tuition and fees:

$1,518 annual average

Degrees and Certificates Annually:

- 482,329 associate of arts degrees
- Nearly 200,000 2-year certificates

Revenue Sources:

- State funds: 39.8 percent
- Tuition and fees: 20.5 percent
- Local funds: 17.3 percent
- Federal funds: 12.3 percent
- Other: 10.1 percent

Information Technology:

- More than 95 percent of community colleges are Internet connected.
- In the past three years, average starting salary for graduates of IT programs has increased more than 24 percent—from $20,753 to $25,771.

Training:

? 95 percent of businesses and organizations who use them would recommend community college workforce education and training programs.

Welfare Reform:

? 48 percent of community colleges offer welfare-to-work programs. Of those that do not, 54 percent plan to offer programs designed specifically for welfare recipients.

Graduate Income:

? Average expected lifetime earnings for a graduate with an associate's degree is more than $1 million, about $250,000 more than an individual with only a high school diploma.

Governance:

? Over 600 boards of trustees
? 6,500 board members
? 29 states - local boards
? 16 states - state boards
? 4 states - local/state boards

American Association of Community Colleges, based on data from 1996-1997 records with the exceptions of enrollment (Fall 1997) and welfare reform (1998).

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